

02/069 VAT

What is claimed is:

- 5 1. A fiber-reinforced laminate having at least two layers at least one of which comprises a polymer containing allyl groups, acrylic groups and/or methacrylic groups which is curable by irradiation with high-energy light.
- 10 2. The fiber-reinforced laminate as claimed in claim 1, wherein one outer layer **A'** comprises a polymer **A** which contains allyl groups, acrylic groups and/or methacrylic groups and is curable by high-energy radiation and an adjacent layer comprises reinforcing fibers and a curable
15 composition **B'** comprising a polymer **B** selected from systems polymerizable free-radically (**B1**) and by irradiation with high-energy light (**B2**).
- 20 3. The fiber-reinforced laminate as claimed in claim 2, wherein the polymers **A** and **B2** are selected independently of one another from epoxy acrylates, urethane acrylates, melamine acrylates, polyether acrylates, polyester acrylates, the corresponding methacrylates, and allyl group-containing polyesters, and mixtures thereof.
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4. The fiber-reinforced laminate as claimed in claim 2, wherein the polymers **B1** are unsaturated polyesters which if desired contain styrene.
- 30 5. The fiber-reinforced laminate as claimed in claim 2, wherein the polymers **B1** are selected from allyl group-containing polyesters and mixtures thereof with unsaturated polyesters based on fumaric acid.
- 35 6. The fiber-reinforced laminate as claimed in claim 1,

wherein the first layer is a flexible sheet selected from veneers, polymer films, and metal foils and the second layer comprises reinforcing fibers and the radiation-curable polymer **A**.

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7. The fiber-reinforced laminate as claimed in claim 6, wherein the first layer is a veneer which after the curing of the second layer is coated with at least one coating cured by irradiation with high-energy light.

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8. A process for producing a cured laminate as claimed in claim 2, comprising the steps of (1) producing a cured polymer layer **A'** from a polymer **A** by irradiation with high-energy light and (2) applying a further layer to the layer **A'** produced in step (1), the further layer comprising reinforcing fibers and a curable composition **B'** which originates by free-radical polymerization from a free-radically polymerizable system **B1** and/or by irradiation of a system **B2** with high-energy light.

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9. A process for producing a shaped laminate as claimed in claim 2, which comprises in the first step coating a molding or an area of a smooth substrate with a layer **Z** which has an antiadhesive action, then in a second step coating this layer with a composition comprising a substance **A** polymerizable by irradiation with high-energy light, in the third step polymerizing the substance **A** by irradiation and so curing it, in the fourth step coating the free surface of this layer with a curable composition **B'** comprising a polymer **B** selected from systems polymerizable free-radically (**B1**) and by irradiation with high-energy light (**B2**) and reinforcing fibers, in the fifth step at least partly curing the curable composition **B'**, and in the sixth step detaching this system from said area or said molding, the laminate formed being

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subsequently shaped under the action of heat and pressure while the composition **B'** has not yet fully cured.

- 5 10. A process for producing a laminate as claimed in claim 6, which comprises covering the sheet with a layer comprising reinforcing fibers impregnated with a polymer **A** curable by irradiation with high-energy light and then curing the polymer-impregnated fiber layer by irradiation.
- 10 11. The process for producing a coated laminate as claimed in claim 10, wherein after the fiber layer has been cured the sheet is coated with a clearcoat material curable by irradiation with high-energy light.